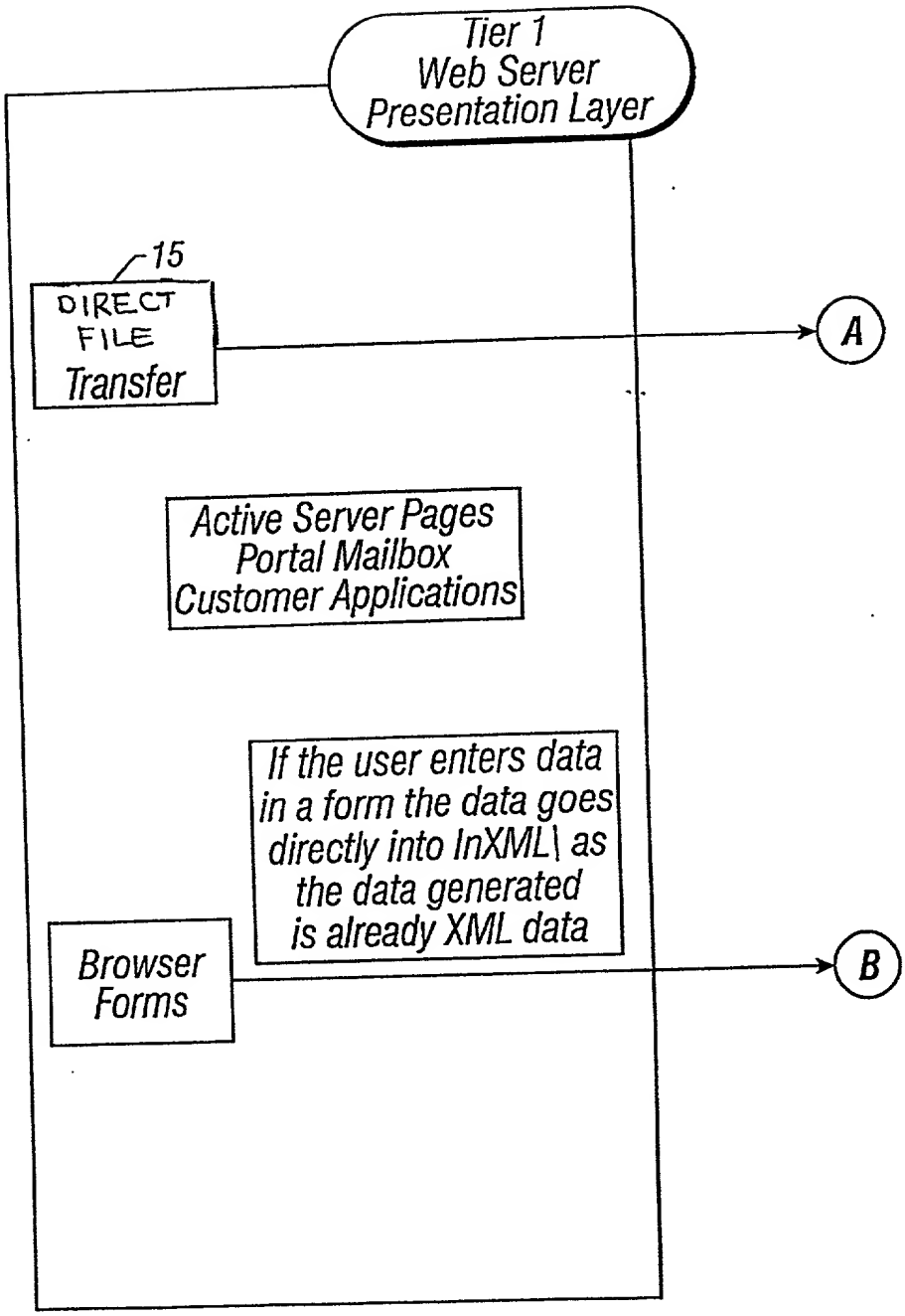
Tier 1
Web Server
Presentation Layer
15
DIRECT
FILE
Transfer
A
Active Server Pages
Portal Mailbox
Customer Applications
If the user enters data in a form the data goes directly into InXML\ as the data generated is already XML data
Browser
Forms
B

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FIG. 1A

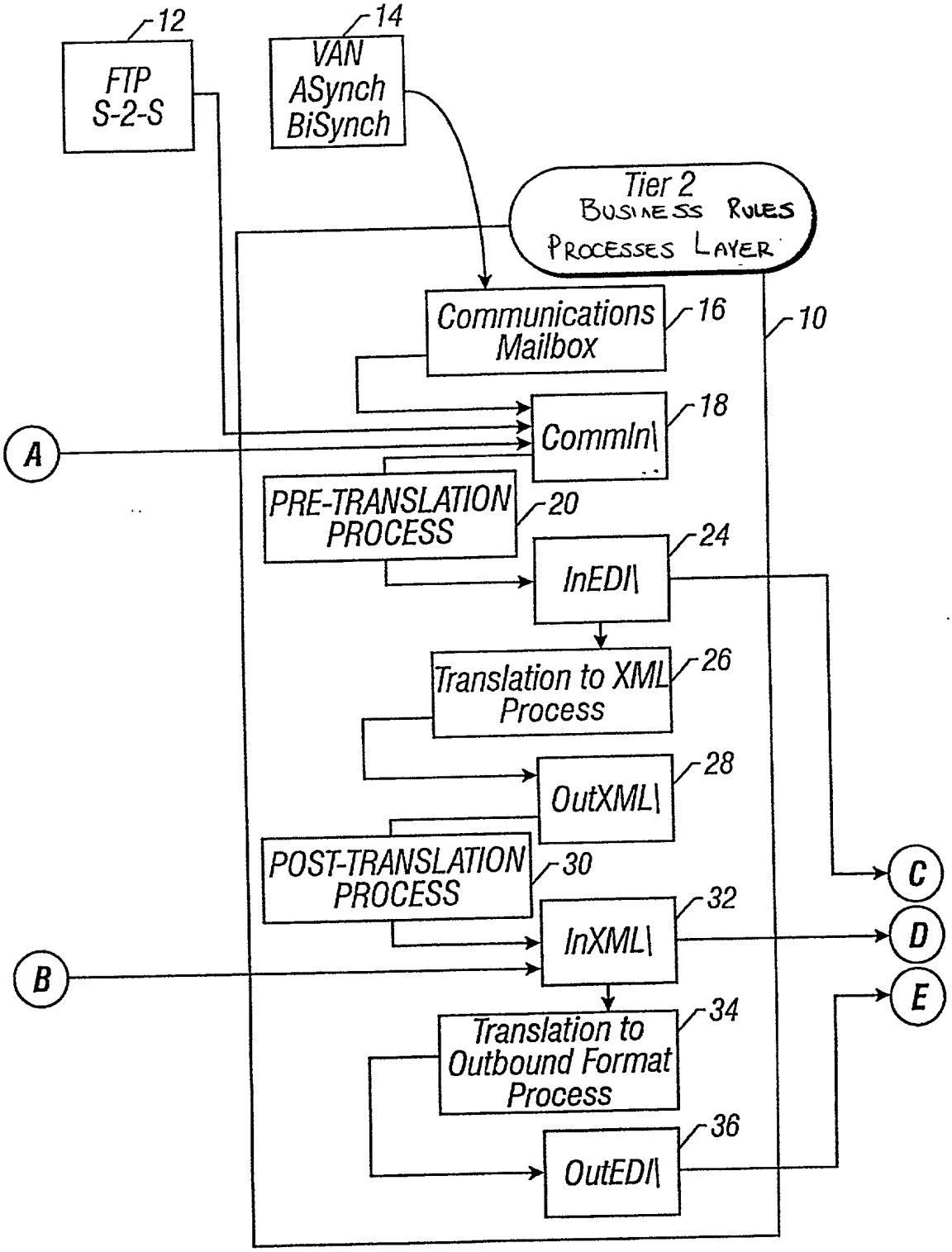
12
FTP
S-2-S
14
VAN
ASynch
BiSynch
Tier 2
Business Rules
Processes Layer
Communications
Mailbox
16
10
CommIn\
18
A
PRE-TRANSLATION
PROCESS
20
InEDI\
24
Translation to XML
Process
26
OutXML\
28
POST-TRANSLATION
PROCESS
30
InXML\
32
C
D
E
B
Translation to
Outbound Format
Process
34
OutEDI\
36

FIG. 1B

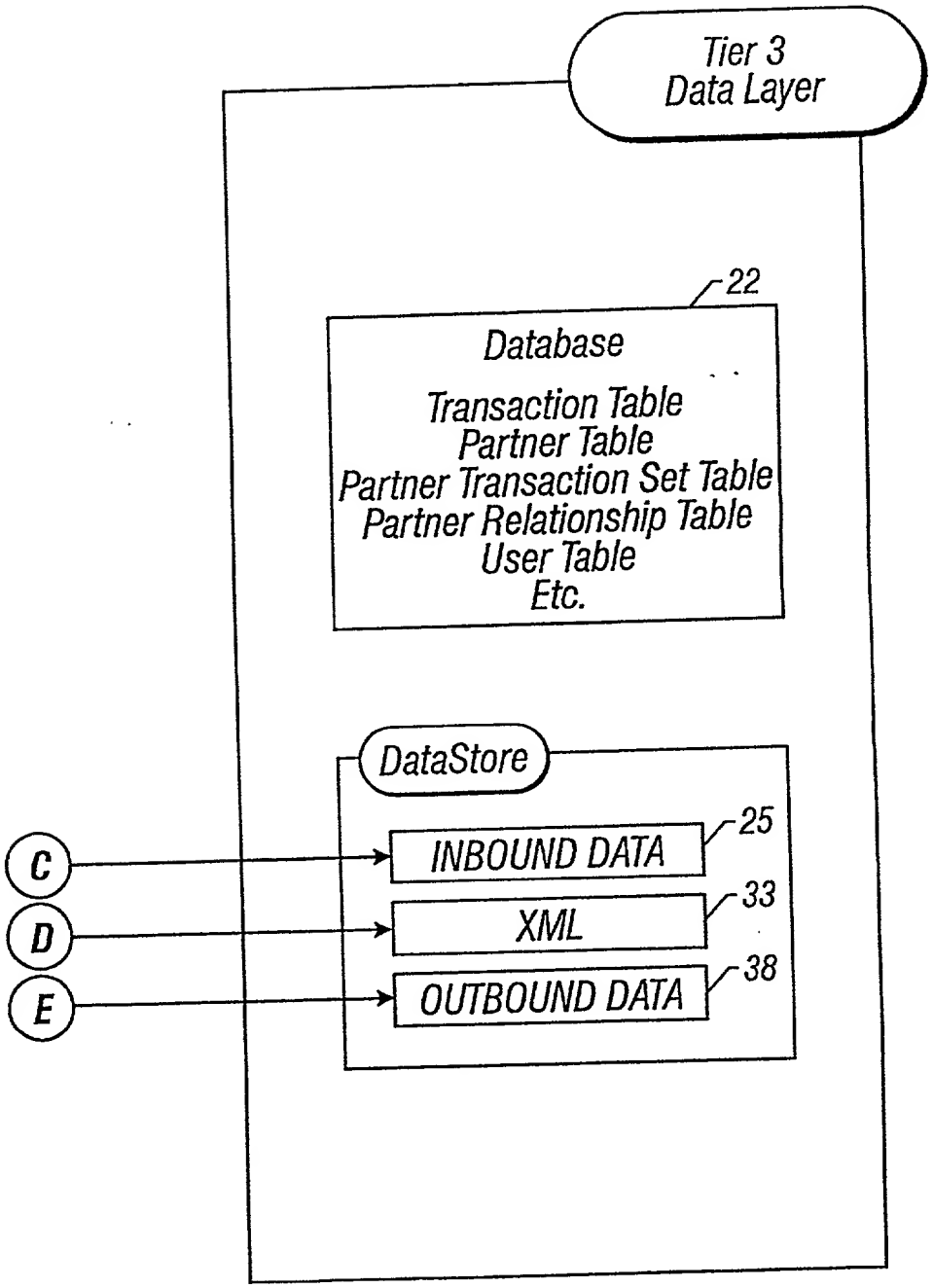
Tier 3
Data Layer
22
Database
Transaction Table
Partner Table
Partner Transaction Set Table
Partner Relationship Table
User Table
Etc.
DataStore
25
INBOUND DATA
33
XML
38
OUTBOUND DATA
C
D
E

FIG. 1C

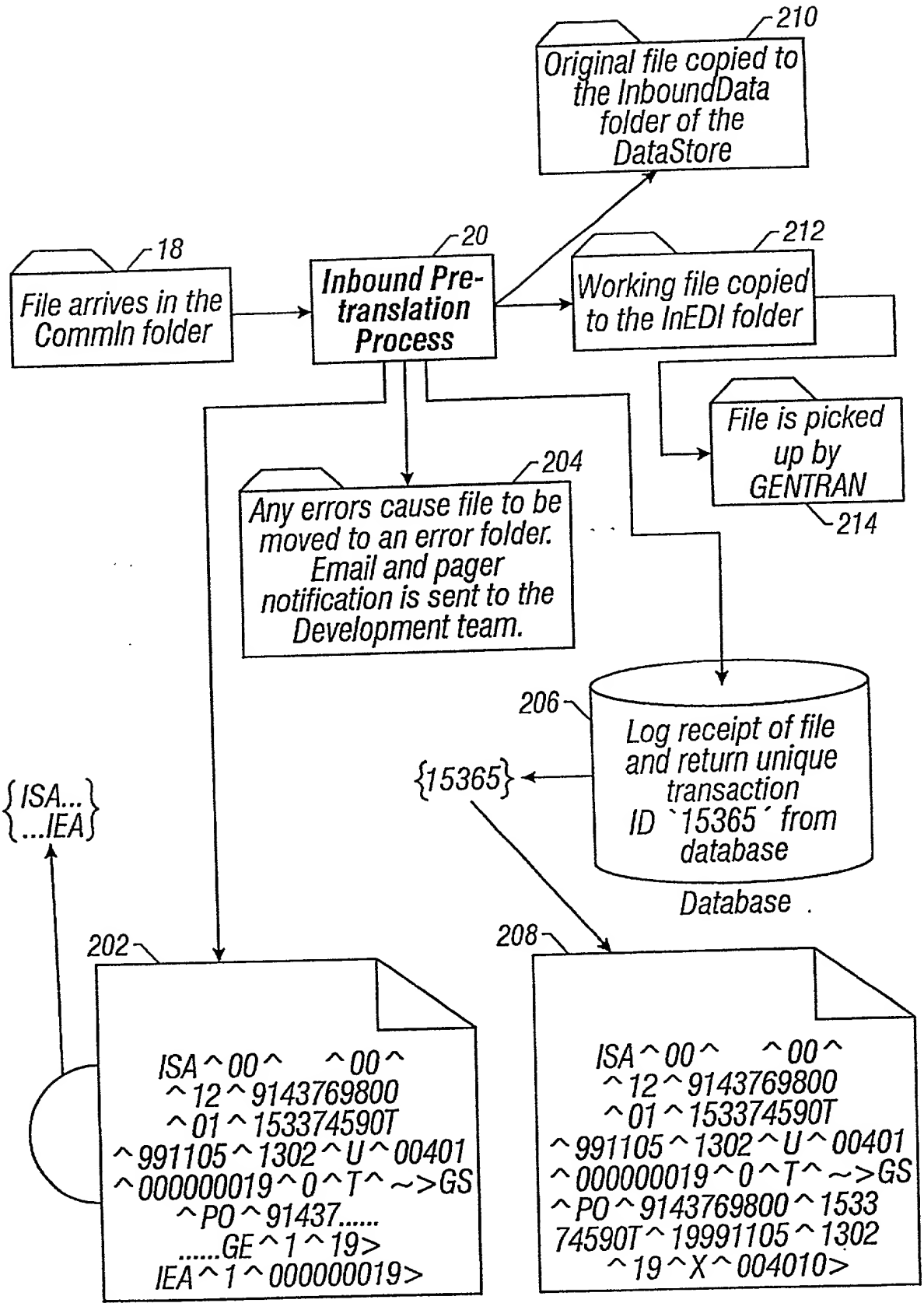
210
Original file copied to the InboundData folder of the DataStore
18
File arrives in the CommIn folder
20
Inbound Pre-translation Process
212
Working file copied to the InEDI folder
File is picked up by GENTRAN
214
204
Any errors cause file to be moved to an error folder. Email and pager notification is sent to the Development team.
206
Log receipt of file and return unique transaction ID `15365´ from database
{15365}
Database
{ISA...
...IEA}
202
ISA^00^ ^00^
^12^9143769800
^01^153374590T
^991105^1302^U^00401
^000000019^0^T^~>GS
^PO^91437.....
.....GE^1^19>
IEA^1^000000019>
208
ISA^00^ ^00^
^12^9143769800
^01^153374590T
^991105^1302^U^00401
^000000019^0^T^~>GS
^PO^9143769800^1533
74590T^19991105^1302
^19^X^004010>

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FIG. 2

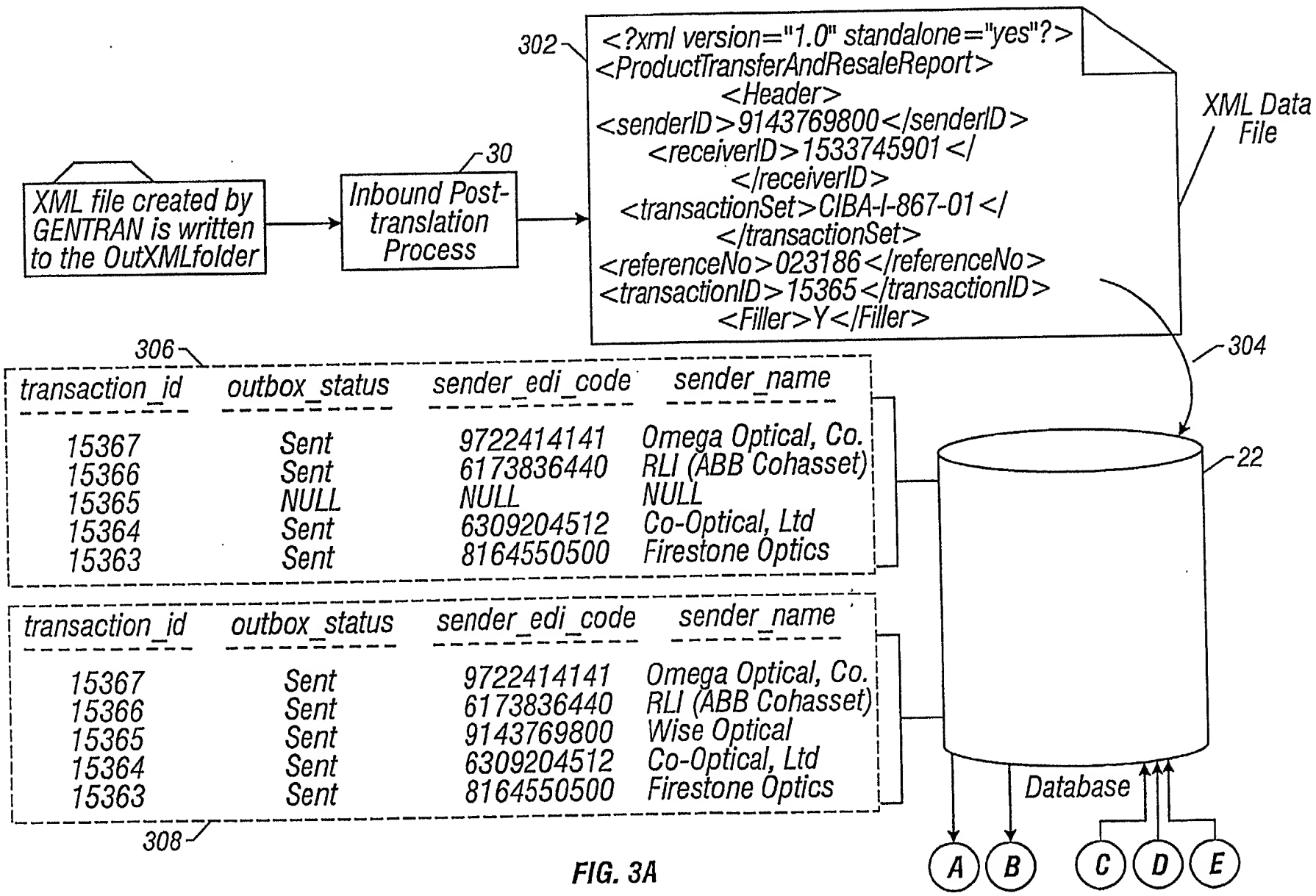
302
<?xml version="1.0" standalone="yes"?>
<ProductTransferAndResaleReport>
<Header>
<senderID>9143769800</senderID>
<receiverID>1533745901</
</receiverID>
<transactionSet>CIBA-I-867-01</
</transactionSet>
<referenceNo>023186</referenceNo>
<transactionID>15365</transactionID>
<Filler>Y</Filler>
XML Data File
XML file created by GENTRAN is written to the OutXMLfolder
30
Inbound Post-translation Process
304
306
transaction_id | outbox_status | sender_edi_code | sender_name
15367 | Sent | 9722414141 | Omega Optical, Co.
15366 | Sent | 6173836440 | RLI (ABB Cohasset)
15365 | NULL | NULL | NULL
15364 | Sent | 6309204512 | Co-Optical, Ltd
15363 | Sent | 8164550500 | Firestone Optics
22
transaction_id | outbox_status | sender_edi_code | sender_name
15367 | Sent | 9722414141 | Omega Optical, Co.
15366 | Sent | 6173836440 | RLI (ABB Cohasset)
15365 | Sent | 9143769800 | Wise Optical
15364 | Sent | 6309204512 | Co-Optical, Ltd
15363 | Sent | 8164550500 | Firestone Optics
308
Database
A
B
C
D
E

FIG. 3A

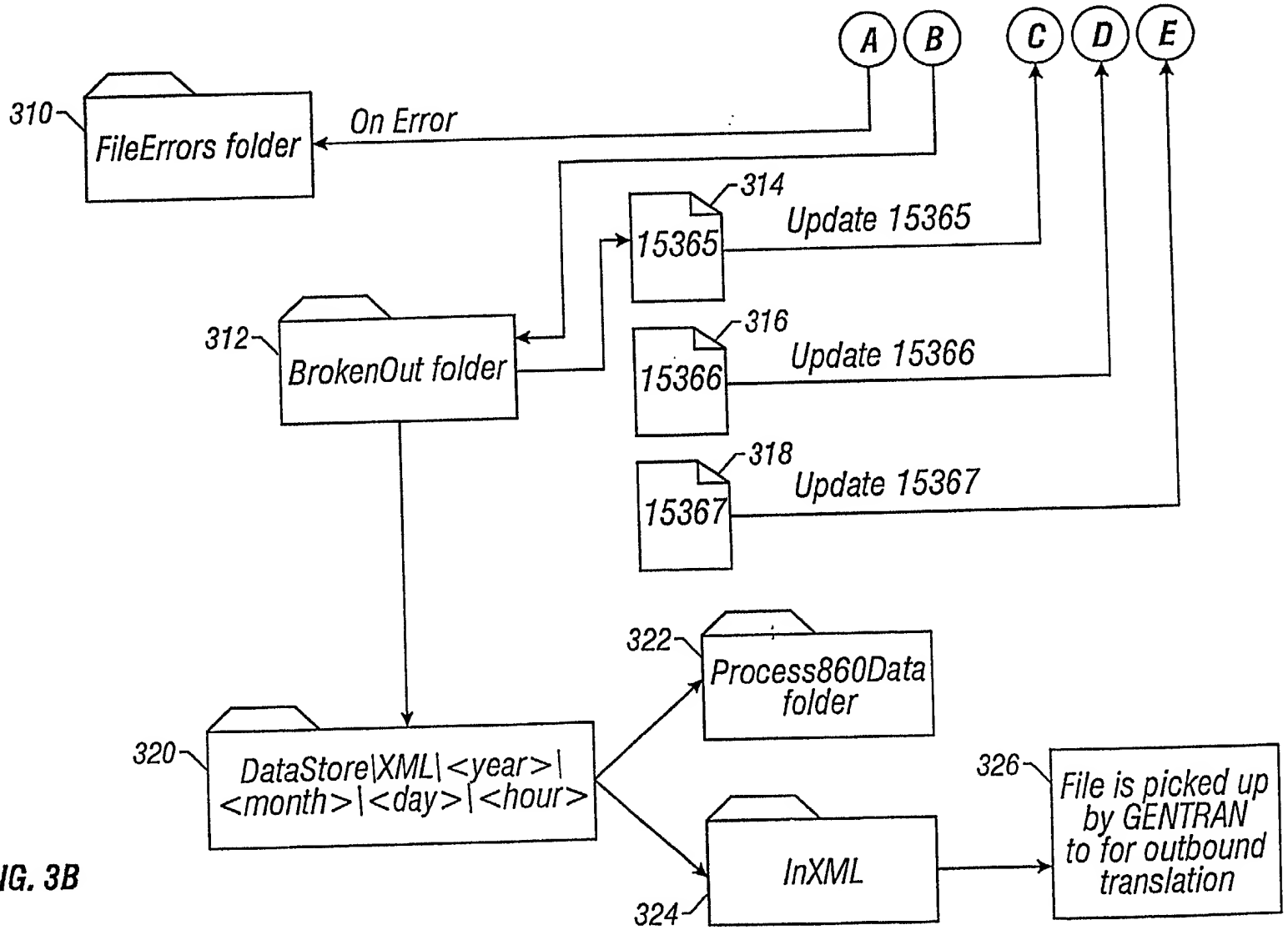
A
B
C
D
E
310
FileErrors folder
On Error
314
15365
Update 15365
312
BrokenOut folder
316
15366
Update 15366
318
15367
Update 15367
322
Process860Data folder
320
DataStore\XML\<year>\<month>\<day>\<hour>
326
File is picked up by GENTRAN to for outbound translation
InXML
324

FIG. 3B

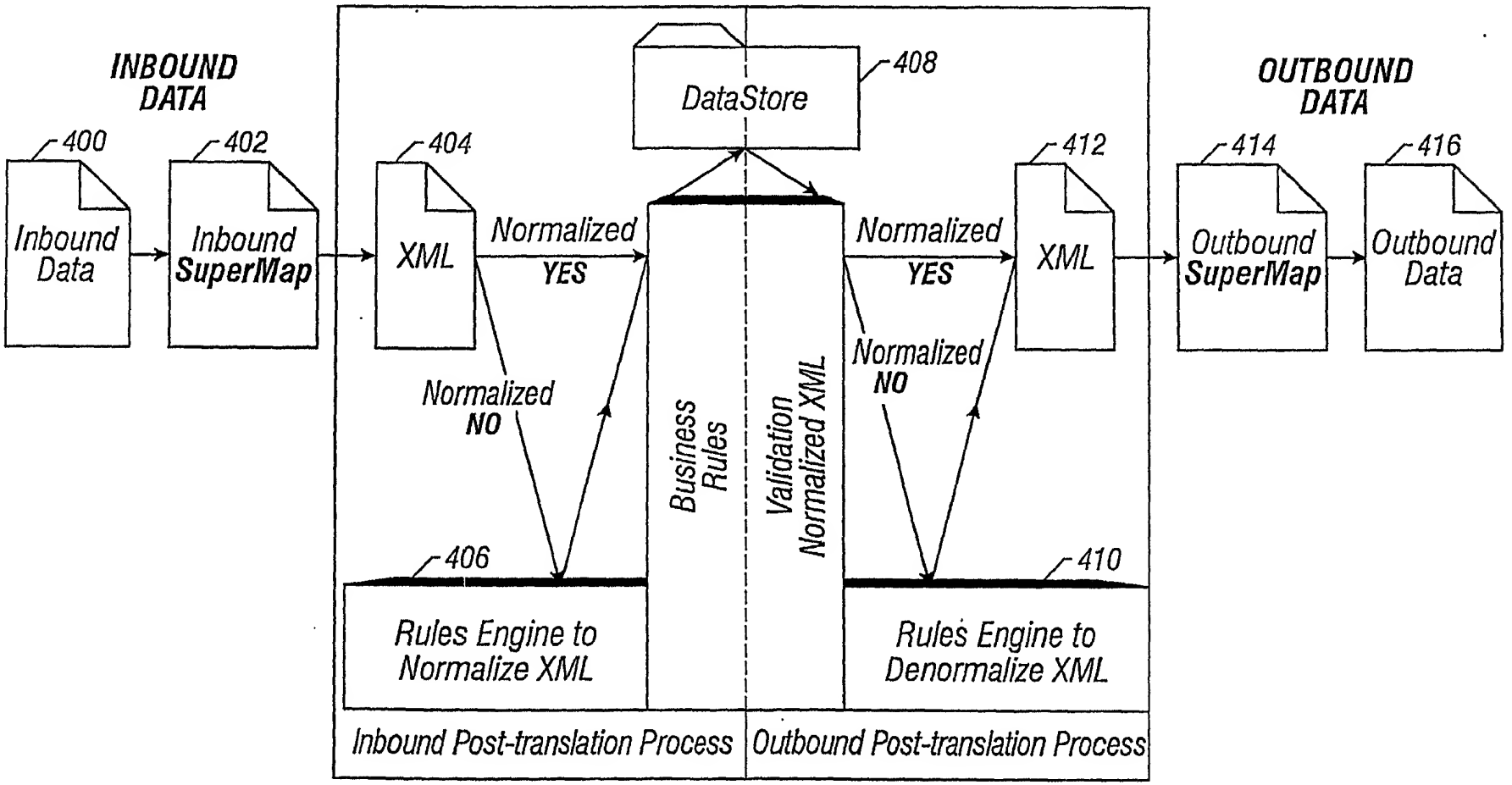
INBOUND DATA
OUTBOUND DATA
400
Inbound Data
402
Inbound SuperMap
404
XML
Normalized YES
Normalized NO
408
DataStore
Business Rules
Validation Normalized XML
412
XML
Normalized YES
Normalized NO
414
Outbound SuperMap
416
Outbound Data
406
Rules Engine to Normalize XML
410
Rules Engine to Denormalize XML
Inbound Post-translation Process
Outbound Post-translation Process

FIG. 4

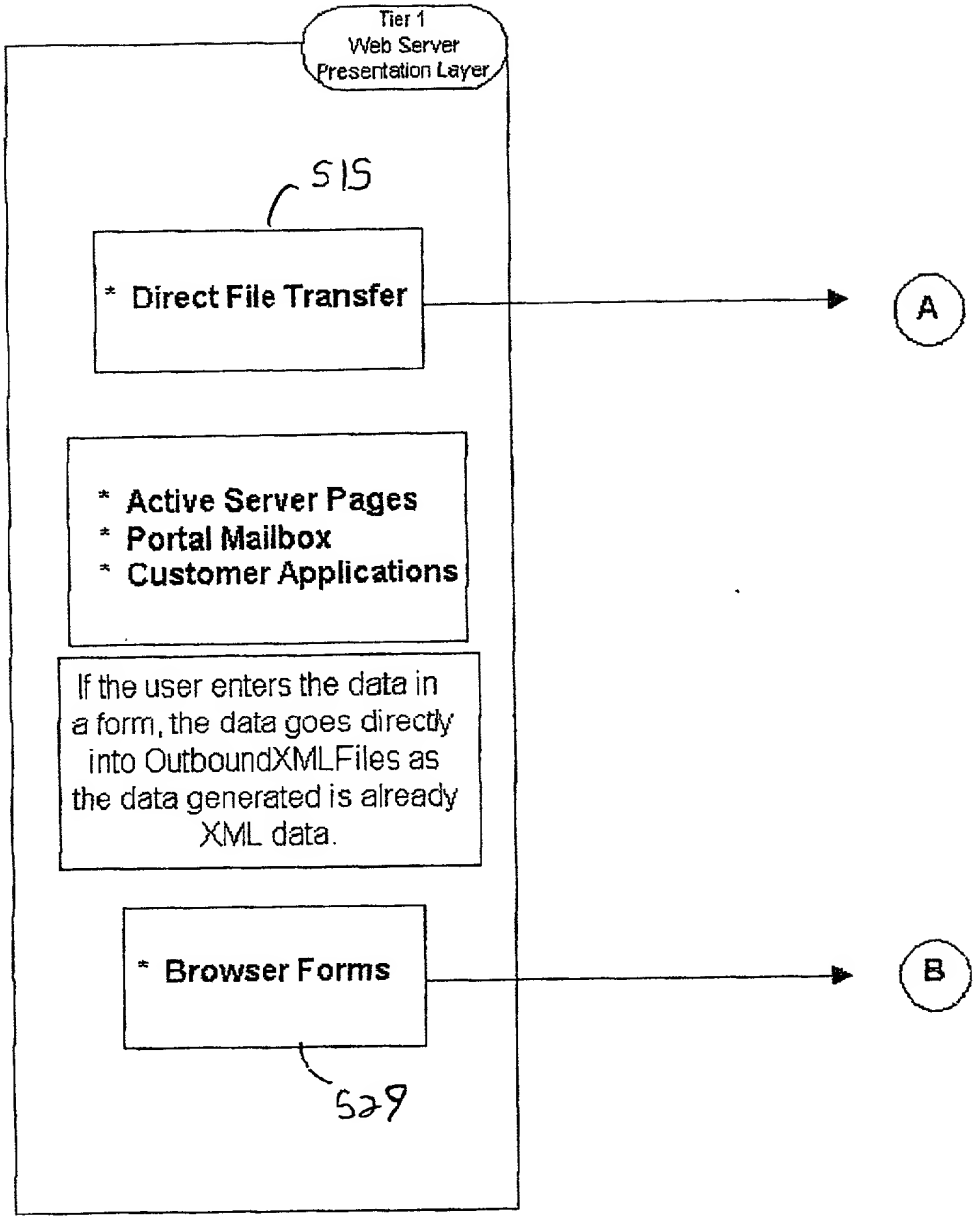
Tier 1
Web Server
Presentation Layer
515
* Direct File Transfer
A
* Active Server Pages
* Portal Mailbox
* Customer Applications
If the user enters the data in a form, the data goes directly into OutboundXMLFiles as the data generated is already XML data.
* Browser Forms
B
529

Fig. 5A

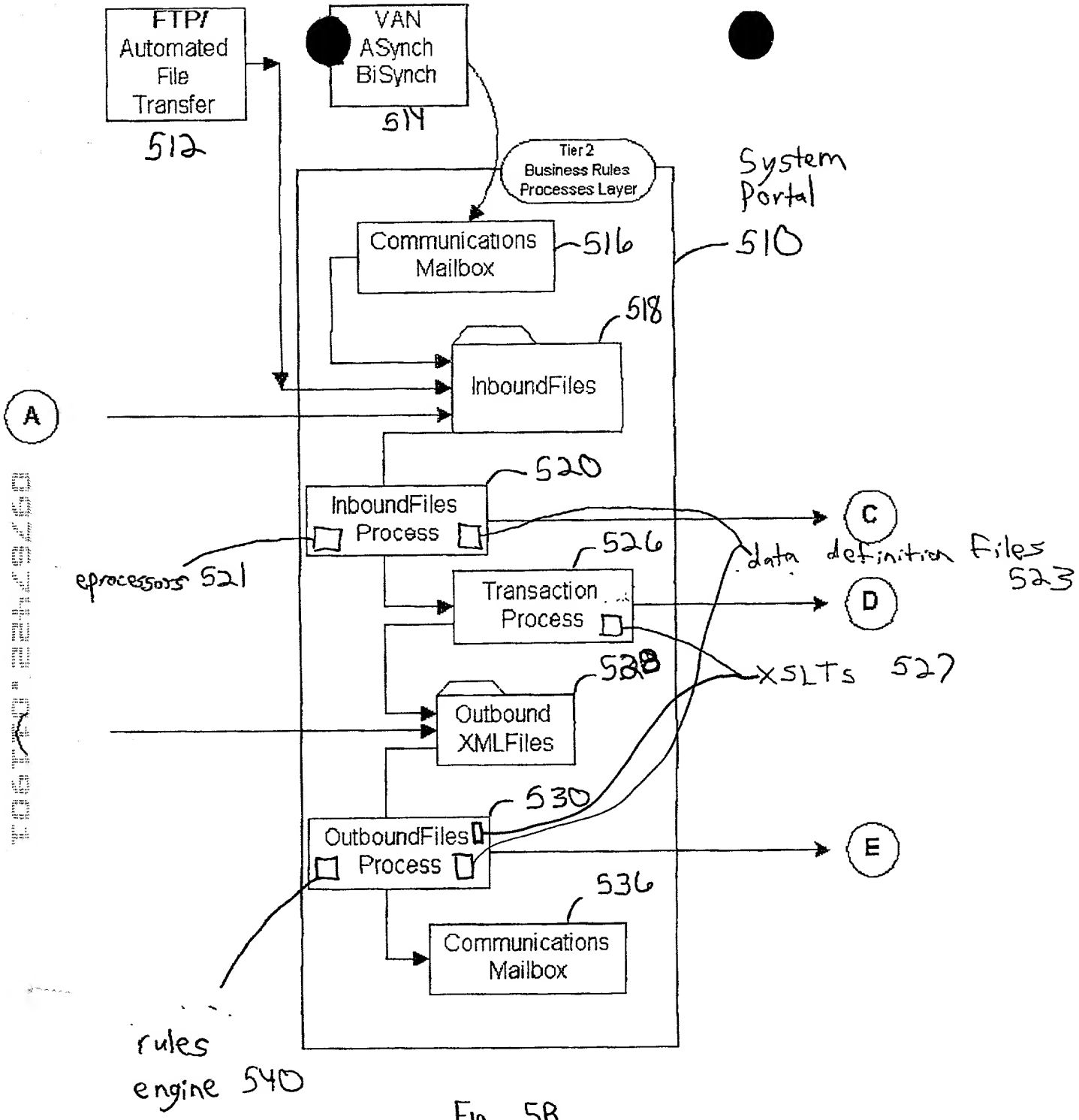
FTP/ Automated File Transfer
512
VAN ASynch BiSynch
514
Tier 2 Business Rules Processes Layer
System Portal
510
Communications Mailbox
516
518
InboundFiles
A
520
InboundFiles Process
eprocessors 521
526
Transaction Process
C
data definition Files 523
D
XSLTs 527
528
Outbound XMLFiles
530
OutboundFiles Process
E
536
Communications Mailbox
rules engine 540

Fig. 5B

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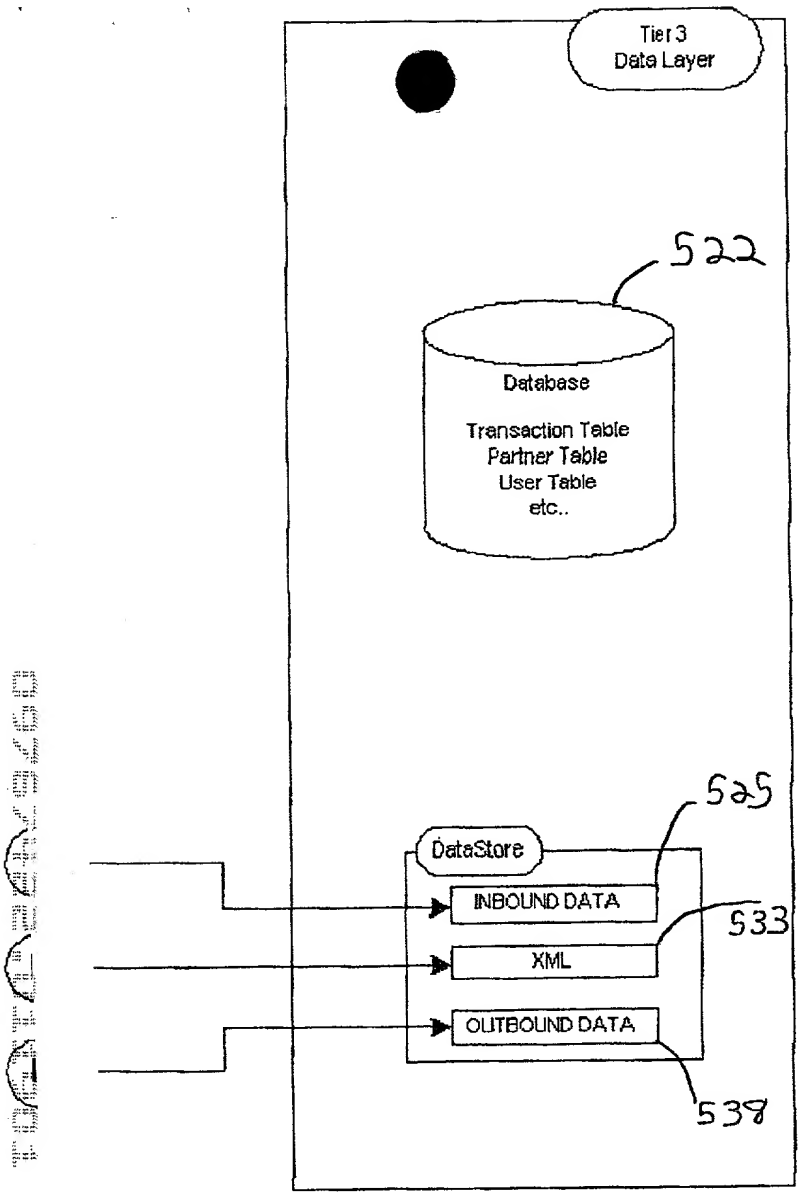
Tier 3
Data Layer
522
Database
Transaction Table
Partner Table
User Table
etc..
525
DataStore
INBOUND DATA
533
XML
OUTBOUND DATA
538

Fig. 5C

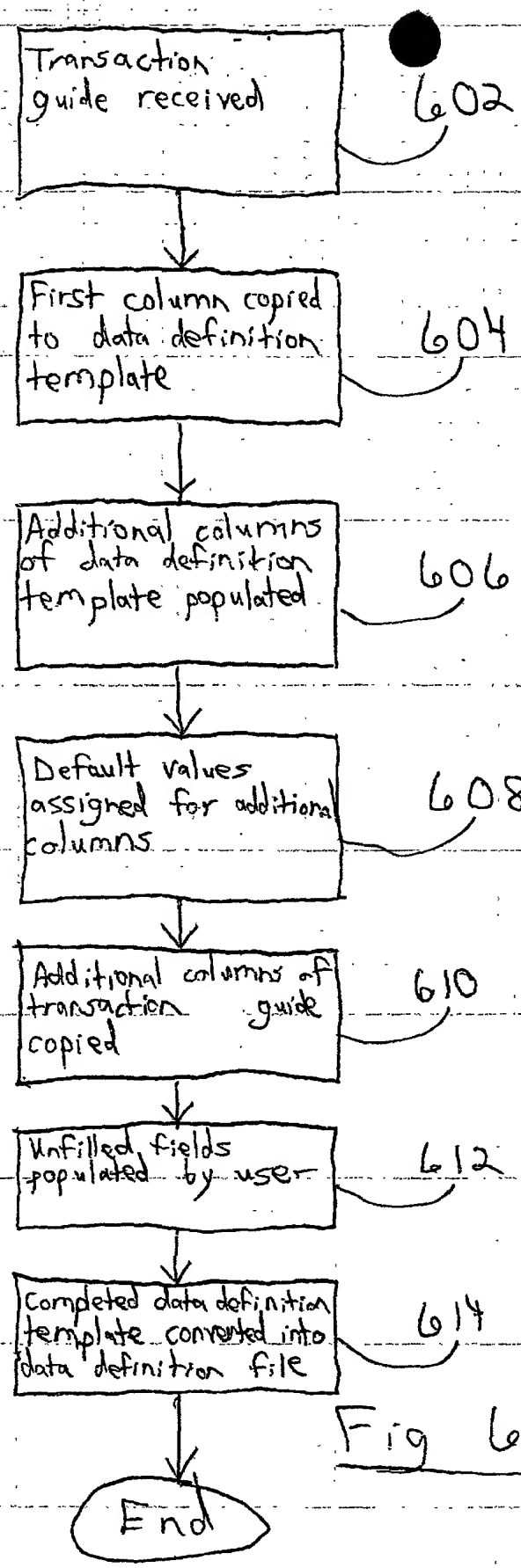
Transaction guide received
602
First column copied to data definition template
604
Additional columns of data definition template populated
606
Default values assigned for additional columns
608
Additional columns of transaction guide copied
610
Unfilled fields populated by user
612
Completed data definition template converted into data definition file
614
End

Fig 6.

Step710: Idoc Implementation Guide

```
BEGIN_SEGMENT  E2EDK02
LEVEL  02
STATUS  OPTIONAL
LOOPMIN  0000000001
LOOPMAX  0000000010
   BEGIN_FIELDS
   NAME  QUALF
   TEXT  IDOC qualifier reference document
   TYPE  CHARACTER
   LENGTH  000003
   FIELD_POS  0001
   BYTE_FIRST  000064
   BYTE_LAST  000066
   VALUE  001
   VALUE_TEXT  Customer purchase order

   NAME  BELNR
   TEXT  IDOC document number
   TYPE  CHARACTER
   LENGTH  000035
   FIELD_POS  0002
   BYTE_FIRST  000067
   BYTE_LAST  000101
```

Step720: Idoc Implementation Guide as XML

```
<BEGIN_SEGMENT>E2EDK02</BEGIN_SEGMENT>
<LEVEL>02</LEVEL>
<STATUS>OPTIONAL</STATUS>
<LOOPMIN>0000000001</LOOPMIN>
<LOOPMAX>0000000010</LOOPMAX>
      <BEGIN_FIELDS />
      <NAME>QUALF</NAME>
      <TEXT>IDOC qualifier reference document</TEXT>
      <TYPE>CHARACTER</TYPE>
      <LENGTH>000003</LENGTH>
      <FIELD_POS>0001</FIELD_POS>
      <BYTE_FIRST>000064</BYTE_FIRST>
      <BYTE_LAST>000066</BYTE_LAST>
      <VALUE>001</VALUE>
      <VALUE_TEXT>Customer purchase order</VALUE_TEXT>

      <NAME>BELNR</NAME>
      <TEXT>IDOC document number</TEXT>
      <TYPE>CHARACTER</TYPE>
      <LENGTH>000035</LENGTH>
      <FIELD_POS>0002</FIELD_POS>
      <BYTE_FIRST>000067</BYTE_FIRST>
      <BYTE_LAST>000101</BYTE_LAST>
```


Fig. 7a

Step 730: Idoc EDD

```
<RECORD NAME="E2EDK02" ACTIVE="yes" XMLTAG="E2EDK02" TAG="E2EDK02"
TAGPOSITION="0" MINOCCURRENCE="0" MAXOCCURRENCE="10">
 <ELEMENT NAME="QUALF" DESCRIPTION="IDOC qualifier reference document" ACTIVE="yes"
XMLTAG="QUALF" MINLENGTH="0" MAXLENGTH="3" OFFSET="63" REQUIRED="no"
JUSTIFICATION="left" DATATYPE="string"/>
 <ELEMENT NAME="BELNR" DESCRIPTION="IDOC document number" ACTIVE="yes"
XMLTAG="BELNR" MINLENGTH="0" MAXLENGTH="35" OFFSET="66" REQUIRED="no"
JUSTIFICATION="left" DATATYPE="string"/>
```

Step 740: Idoc Source Data

```
E2EDK02                         021000000000314584400001100000002001459001218O
20001025082600
```

Step 750: Idoc Intermediate XML (EDD output)

```
<E2EDK02>
  <QUALF>001</QUALF>
  <BELNR>4590012180</BELNR>
```

Step 760: Idoc XSLT

```
<DocumentHeader>
   <xsl:for-each select="./E2EDK02[./QUALF = '001']">
      <poNumber><xsl:value-of select="./QUALF"/></poNumber>
      <poNumber><xsl:value-of select="./BELNR"/></poNumber>
   </xsl:for-each>
```

Step 770: Idoc Normalized XML

```
<DocumentHeader>
      <qualifier>001</qualifier>
      <poNumber>4590012180</poNumber>
```


Fig. 7b

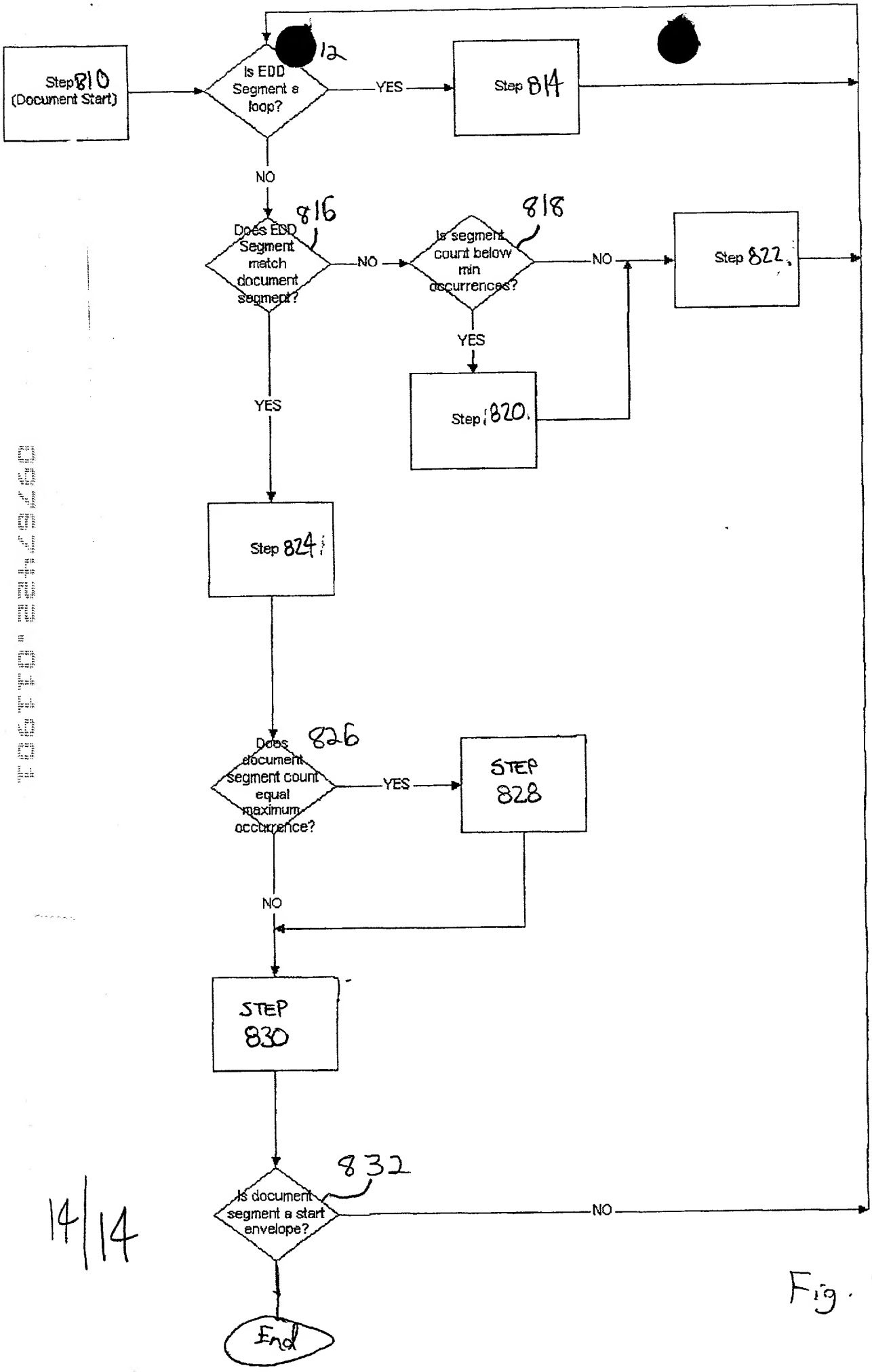
Step 810 (Document Start)
Is EDD Segment a loop?
12
YES
Step 814
NO
Does EDD Segment match document segment?
816
NO
Is segment count below min occurrences?
818
NO
Step 822
YES
Step 820
YES
Step 824
Does document segment count equal maximum occurrence?
826
YES
STEP 828
NO
STEP 830
Is document segment a start envelope?
832
NO
End

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Fig. 8